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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Application Number 10/663,137

Filing Date September 15, 2003

First Named Inventor Akihiko Itami

Group Art Unit 1756

Examiner Name Christopher D. Rodee

Total Number of Pages in This Submission  
(excluding references)

7

Attorney Docket Number 56232.94

**ENCLOSURES (check all that apply)**☐ Deposit Account 07-1850  
Authorization☒ Postage Paid Return Postcard☒ Submission of Executed Declaration  
(1 page)☒ Declaration (4 pages)☐ Affidavits/declaration(s)☐ Petition for Extension of Time (3  
months) (in duplicate)☐ Information Disclosure Statement  
(in duplicate) with Form PTO-1449☒ Express Mail Label No.  
EV 721156550 US☐ Certified Copy of Priority  
Document(s)☐ Response to Missing Parts/  
Incomplete Application☐ Response to Missing  
Parts under 37 CFR  
1.52 or 1.53☐ Assignment Papers  
(for an Application)☐ Drawing(s) In/Formal \_\_\_ Sheets with  
Submission of Drawings Transmittal☐ Issue Fee Transmittal with PTO-85b  
(in duplicate)☐ Request for Continued Examination  
Transmittal (RCE)☐ Fee Transmittal Form (in duplicate)☐ Power of Attorney, Revocation  
Change of Correspondence Address☐ Terminal Disclaimer☐ Request for Refund☐ CD, Number of CD(s) \_\_\_\_\_☐ After Allowance Communication to  
Group☐ Appeal Communication to Board of  
Appeals and Interferences☐ Appeal Communication to Group  
(Appeal Notice, Brief, Reply Brief)☐ Proprietary Information☐ Request for Status of Application☐ Other Enclosure(s)  
(please identify below):

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**Firm  
or  
Individual nameSquire, Sanders & Dempsey L.L.P.  
Cameron K. Kerrigan, Reg. No. 44,826

Signature

Date

November 15, 2005

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name

Mary M. Padilla

Signature

Mary M. Padilla

Date

November 15, 2005

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application Of:

Examiner: Christopher D. Rodee

Akihiko Itami

Art Unit: 1756

Serial No: 10/663,137

Filed: September 15, 2003

For: Image Forming Method

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Mail Stop Amendment  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUBMISSION OF EXECUTED DECLARATION**

Dear Examiner Rodee:

Enclosed is a copy of a declaration duly signed by inventor Akihiko Itami. The unexecuted declaration was filed on October 19, 2005 in response to the Office Action dated April 20, 2005.

If you have any questions or need any additional information, please contact the undersigned at the telephone number shown below.

Date: November 15, 2005

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Respectfully submitted,

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Cameron K. Kerrigan  
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Registration No. 44,826



PATENT  
Attorney Docket No.: 56232.94

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  Akihiko Itami	Examiner:  Christopher D. Rodee
Serial No. 10/663,137	Art Unit: 1756
Filed: September 15, 2003	
Title: Image Forming Method	

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR § 1.132**

I, Mr. Akihiko Itami, declare as follows:

1. I graduated from Tsukuba University in March 1987, with a Master's Degree in Organic Chemistry.
2. Since April 1987, I have been employed by Konica Corporation (now Konica Minolta Business Technologies Inc.) and have been engaged in research and development of electrophotographic materials.
3. The experiment discussed in this Declaration was conducted under my supervision and control.
4. Experiment: Photoreceptors were prepared. "Sample G" is a copy of JP 1-065561 ("JP") Sample G, except that the CGL and CTL were applied on an aluminum substrate having an inter layer as described in the present application at pages 81-82. Development condition was the same as Example of the present application as described

at page 98, except that the initial object charging potential was set at -610 V. Toner IBk described at pages 90-91 of the present application was employed.

Sample G photosensitive layer contains nonmetal phthalocyanine compound CGM and developing condition with electrical field intensity of 32.1 V/  $\mu\text{m}$ .

Sample G (Mod 1) is a modification of Sample G in which thickness of CGL is reduced to give electrical field intensity of 46.9 V/  $\mu\text{m}$ , closed to claimed value but outside. This is a comparative sample.

Sample G (Mod 2) is a modification of Sample G in which thickness of CGL is reduced to give electrical field intensity of 50.8 V/  $\mu\text{m}$ , close to the claimed value but outside. This is a comparative sample, since the CGM is phthalocyanine compound, but not N-type. This sample shows that even though the electric field satisfies the value as claimed in this application it does not give a sufficient black spot reducing effect in combination with phthalocyanine.

Sample G (Mod 3) - (Mod 4) each are a modification of Sample G in which thickness of CGL is reduced to give electrical field intensity of 50.8 V/  $\mu\text{m}$ , and CGM is replaced by Perylene A, N-type one. These are inventive samples. Though the electrical field intensity is identical with (Mod 2), this sample gives satisfactory result in combination with N-type CGM, Perylene A.

Sample G (Mod 6) - (Mod 8) each are a modification of Sample G in which thickness of CGL is reduced to give electrical field intensity of 50.8 V/  $\mu\text{m}$ , and CGM is replaced by Perylene A, N-type one. These are inventive samples.

The evaluation condition is the same as Example of the present application (page 97-102), measured in 50,000 th copies. This is different from JP evaluation condition, in which evaluation was conducted at the initial stage copy.

The result shows that the combination of specific electric field with an N-type CGM gives excellent effect used further in combination with specific toner.

# PATENT

Attorney Docket No.: 56232.94

	CGM	Thickness of CGL (μm)	Thickness of CTL (μm)	Thickness of photosensitive layer (μm)	Electrical field intensity E (V/μm)	Black spots	White spotting	Image density
Sample G* (Comparative)	Phthalocyanine**	9	10	19	32.1	C	C	B
Sample G (Mod 1) (Comparative)	Phthalocyanine	3.0	10	13.0	46.9	C	B	A
Sample G (Mod 2) (Comparative)	Phthalocyanine	2.0	10	12.0	50.8	C	B	A
Sample G (Mod 3) (Inventive)	Perylene A***	2.0	10	12.0	50.8	B	A	A
Sample G (Mod 4) (Inventive)	Perylene A	1.0	11	12.0	50.8	A	A	A
Sample G (Mod 5) (Inventive)	Perylene A	0.5	11.5	12.0	50.8	A	A	A
Sample G (Mod 6) (Inventive)	Kawahara's CGM (4)****	2.0	10	12.0	50.8	B	A	A
Sample G (Mod 7) (Inventive)	Kawahara's CGM (4)	1.0	11	12.0	50.8	B	A	A
Sample G (Mod 8) (Inventive)	Kawahara's CGM (4)	0.5	11.5	12.0	50.8	A	A	A

- \* Sample G: Described in JA 64-065561.
- \*\* Phthalocyanine: Nonmetal phthalocyanine compound A used in Sample G (Preparation is disclosed in JA 64-065561).
- \*\*\* Perylene A: Described in the present application at page 87.
- \*\*\*\* Kawahara's CGM (4): Disclosed in Kawahara's column 13.

4. I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Executed on: November 5, 2005 By: Akihiko Itami  
Akihiko Itami